WHERE WE HAVE BEEN AND WHERE WE ARE GOING

OBJECTIVES OF DISCUSSION

- A) Evolution of HIV Treatment
- B) Barriers to Adherence of HIV Treatment
- C) HIV Reservoir Sites
- D) Elite Controllers
- C) Cure Strategies

EVOLVING HIV TREATMENT

- A) 1983 HIV Discovered
- B) 1987 AZT Monotherapy
- C) 1995 AZT-3TC
- D) 1996 Triple Drug Therapy –NRTI, NNRTI and Protease Inhibitor
- E) 2006 Single Tablet Regimes
- F) 2012 Integrase Era Leading to Rapid Initiation 2019
- G) 2021 Cure Strategies

BARRIERS TO ADHERENCE

- A) Difficult Life Conditions
- B) Unstable Living Conditions
- C) Systems Barriers
- D) Phones, Insurance, IDs, ADAP, Transportation, Internet, Providers
- E) Alcohol and Drugs
- F) Psychiatric Issues

HIV LATENCY AND RESERVOIR SITES

- A) Persistent Viral Reservoir Harbors Integrated, Replication Competent Provirus, Within
- Host Cellular DNA.

RESERVOIR SITES/CELLS

- A) Resting CD4 Memory T Cells (Half Life of 44 Months)
- B) Myeloid Cells- Monocytes and Macrophages
- C) Dendritic Cells
- D) Follicular Dendritic Cells
- E) Epithelial Cells- Renal Epithelial Cells, Mammary Epithelial Cells, Astrocytes

ELITE CONTROLLERS

- A) Elite Controllers are HIV Positive Individuals Who Control Viral Replication Without
- Antiretroviral Therapy thus Represents a Model of Functional Cure. (1 in 200 or 0,5%
- of HIV Infected Individuals are Elite Controllers.)

HIV CURE STRATEGIES

- A) Early ART – Limit the Building of the Reservoir
- B) Reduce the Size of the Reservoir
- C) Flush Out the Latent Reservoir (Shock and Kill)
- D) Make Cells Resistant to HIV (Gene Therapy, CAR-T Cells, Redesigned T Cells)
- E) Deplete Infected Cells (Immune Based Therapy with Vaccines)